

Amendments to the Claims

1-4. (Cancelled)

5. (Currently amended) A method of establishing an active set for a mobile station operating in a cellular wireless system, the method comprising:

determining a current physical position of the mobile station;

~~using the physical position of the mobile station as a basis to establish a proposed set of active sectors~~ identifying a group of sectors that each encompass the determined current physical position of the mobile station;

computing a distance respectively between the determined current physical position of the mobile station and each sector of the group; and

~~using the physical position of the mobile station as a basis to select a subset of active sectors from the proposed set of active sectors, the subset of active sectors defining the active set~~ selecting as the active set a subset of the group of sectors, at least in part by selecting from the group one or more sectors for which the computed distance is shortest.

6. (Original) The method of claim 5, further comprising:

sending an indication of the active set to the mobile station.

7. (Currently amended) The method of claim 6, wherein determining the current physical position of the mobile station comprises:

receiving a signal from the mobile station indicating the mobile station position.

8. (Currently amended) The method of claim 6, wherein determining the current physical position of the mobile station comprises:

querying a mobile positioning center to obtain an indication of the current physical position of the mobile station.

9. (Cancelled)

10. (Currently amended) The method of claim ~~[[9]]~~ 6, wherein identifying ~~at least one sector that encompasses the physical position~~ the group of sectors that each encompass the determined current physical position of the mobile station comprises:

querying a sector coverage database to identify the ~~at least one sector that encompasses the physical position~~ group of sectors.

11. (Currently amended) The method of claim 6, wherein the subset of ~~active~~ the ~~group of sectors~~ consists of only one sector, ~~and wherein using the physical position of the mobile station as a basis to select the subset of active sectors comprises:~~

~~selecting from the proposed set of active sectors a sector to which the mobile station is closest.~~

12. (Currently amended) The method of claim 6, wherein the subset of active sectors consists of only two sectors, ~~and wherein using the physical position of the mobile station as a basis to select the subset of active sectors comprises:~~

~~selecting from the proposed set of active sectors two sectors to which the mobile station is closest.~~

13. (Original) The method of claim 6, wherein sending an indication of the active set to the mobile station comprises:

sending a Handoff Direction Message (HDM) to the mobile station, the HDM including the indication of the active set.

14. (Currently amended) A soft handoff method comprising:
repeatedly performing the method of claim 6 as the mobile station moves from a first position to a second position,

wherein the ~~proposed set of active~~ group of sectors when the mobile station is at the first position is different than the ~~proposed set of active~~ group of sectors when the mobile station is at the second position.

15. (Original) A soft handoff method comprising:
performing the method of claim 6 when the mobile station is at a first position, thereby establishing a first active set; and

performing the method of claim 6 when the mobile station has moved from the first position to a second position, thereby establishing a second active set different than the first active set.

16. (Original) A method comprising:
periodically performing the method of claim 6.

17. (Currently amended) A method of establishing an active set for a mobile station operating in a cellular wireless system, the method comprising:

determining a current physical position of the mobile station;

querying a sector coverage database to identify a plurality of sectors that each encompass the determined current physical position;

determining, respectively for each sector of the identified plurality of sectors, a distance between the sector and the determined current physical position of the mobile station;

selecting from the plurality of sectors at most two sectors ~~to which the determined current physical position of the mobile station is closest~~ having the shortest determined distance, the at most two sectors defining an active set; and

sending to the mobile station an indication of the active set.

18. (Currently amended) A system for establishing an active set for a mobile station operating in a cellular wireless system, the system comprising:

means for determining current a physical position of the mobile station;

~~means for using the physical position of the mobile station as a basis to establish a proposed set of active sectors~~ identifying a group of sectors that each encompass the determined current physical position of the mobile station, each sector of the group having a respective point of origin;

means for computing a distance respectively between the determined current physical position of the mobile station and the point of origin of each sector in the group;

~~means for using the physical position of the mobile station as a basis to select a subset of active sectors from the proposed set of active sectors, the subset of active sectors defining the active set~~ selecting as the active set a subset of the group of sectors, at least in part by selecting from the group one or more sectors for which the computed distance is shortest; and

means for providing an indication of the active set for transmission to the mobile station.

19. (Currently amended) A system for establishing an active set for a mobile station operating in a cellular wireless system, the system comprising:

a processor;

data storage;

program instructions stored in the data storage and executable by the processor to cause the processor (i) to determine a current physical position of the mobile station, (ii) ~~to use the physical position of the mobile station as a basis to establish a proposed set of active sectors to~~ identify a group of sectors that each encompass the determined current physical position of the mobile station, each sector of the group having a respective point of origin, (iii) to compute a distance respectively between the determined current physical position of the mobile station and

the point of origin of each sector in the group, (iv) to use the physical position as a basis to select a subset of active sectors from the proposed set of active sectors, the subset defining an active set to select as the active set a subset of the group of sectors, at least in part by selecting from the group one or more sectors for which the computed distance is shortest, and (iv) (v) to provide an indication of the active set for transmission to the mobile station.